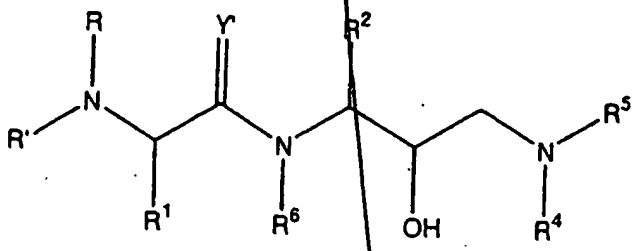
LISTING OF CLAIMS

Claim 1 (withdrawn)

1. A compound represented by the formula:



(Formula I)

or a pharmaceutically acceptable salt, prodrug or ester thereof, wherein:

R represents hydrogen, alkoxycarbonyl, aryloxycarbonylalkyl, aralkoxycarbonyl, alkylcarbonyl, cycloalkylcarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkanoyl, alkanoyl, aralkanoyl, aroyl, aryloxycarbanoyl, aryloxyalkanoyl, heterocyclylcarbonyl, heterocycloxycarbonyl, heteroaralkoxycarbonyl, heterocyclylalkanoyl, heterocyclylalkoxycarbonyl, heteroarylcarbonyl, heteroaryloxycarbonyl, heteroaroyl, alkyl, alkenyl, cycloalkyl, aryl, aralkyl, aryloxyalkyl, heteroaryloxyalkyl, hydroxyalkyl, aralkylaminoalkylcarbonyl, aminoalkanoyl, aminocarbonyl, aminocarbonylalkyl, alkylaminoalkylcarbonyl, and mono- and disubstituted

aminocarbonyl and aminoalkanoyl radicals wherein the substituents are selected from the group consisting of alkyl, aryl, aralkyl, cycloalkyl, cycloalkylalkyl, heteroaryl, heteroaralkyl, heterocycloalkyl, alkoxycarbonyl, arylalkyloxycarbonyl, and heterocycloalkylalkyl radicals, or in the case of disubstituted aminoalkanoyl, said substituents along with the nitrogen atom to which they are attached form a heterocyclyl or heteroaryl radical;

R' represents radicals defined for R^3, or R and R' together with the nitrogen to which they are attached form a heterocycloalkyl or heteroaryl radical;

R^1 represents hydrogen, $-CH_2SO_2NH_2$, $-CO_2CH_3$, $-CH_2CO_2CH_3$, $-C(O)NH_2$, $-C(O)NHCH_3$, $-C(O)N(CH_3)_2$, $-CH_2C(O)NHCH_3$, $-CH_2C(O)N(CH_3)_2$, alkyl, thiolalkyl and the corresponding sulfoxide and sulfone derivatives thereof, alkenyl, haloalkyl, alkoxyalkyl, alkynyl and cycloalkyl radicals and amino acid side chains selected from the group consisting of asparagine, S-methyl cysteine and the corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, alanine, phenylalanine, ornithine, histidine, norleucine, glutamine, valine, threonine, allo-threonine, serine, aspartic acid and beta-cyano alanine, side chains;

R^2 represents alkylthioalkyl, cycloalkylthioalkyl or arylthioalkyl radicals, which radicals are optionally substituted with a substituent selected from the group

consisting of $-NO_2$, $-OR^{15}$, $-SR^{15}$, and halogen radicals, wherein R^{15} represents hydrogen and alkyl radicals;

R^3 represents hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, hydroxyalkyl, alkoxyalkyl, cycloalkyl, cycloalkylalkyl, heterocycloalkyl, heteroaryl, heterocycloalkylalkyl, aryl, aralkyl, and heteroaralkyl radicals;

Y' represents O, S and NR^3;

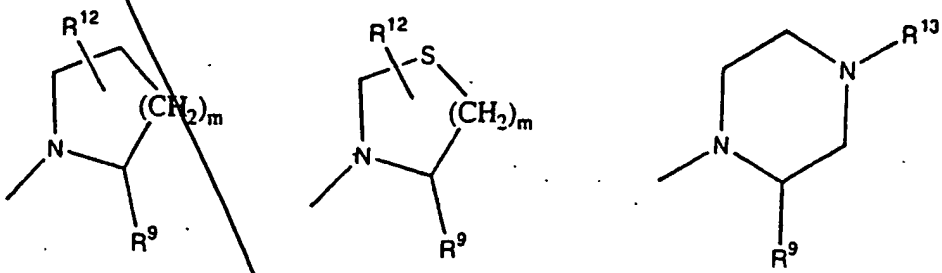
R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocyclic moiety; and R^6 represents hydrogen and alkyl radicals.

Claim 2 (withdrawn)

2. A compound of Claim 1 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocyclic moiety containing 5, 6 or 7 members when monocyclic, 5, 6 or 7 members in a ring with 1, 2 or 3 members in a bridge when a bridged monocyclic, 11, 12 or 13 members when bicyclic, and 11 to 16 members when tricyclic.

Claim 3 (withdrawn)

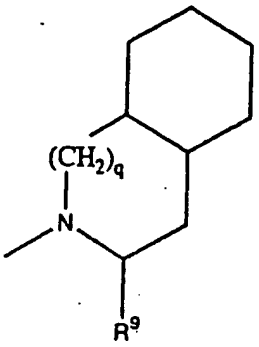
3. A compound of Claim 2 where R^4 and R^5 together with the nitrogen atom to which they are bonded form a N-heterocyclic moiety selected from the group consisting of formulae (A) through and including (J)



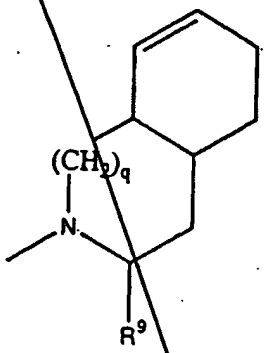
(A)

(B)

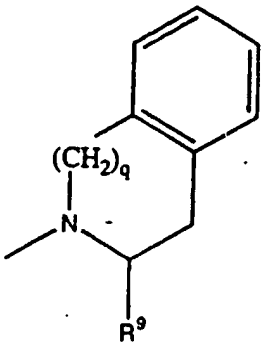
(C)



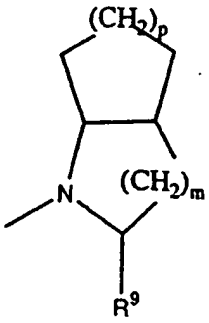
(D)



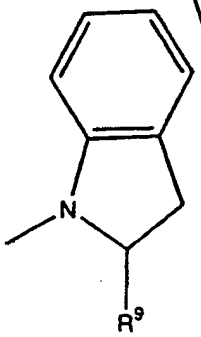
(E)



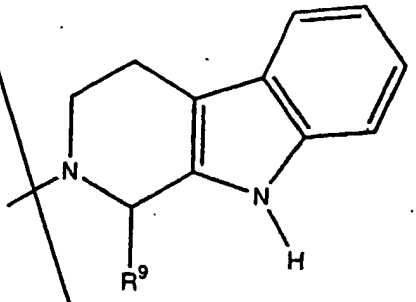
(F)



(G)



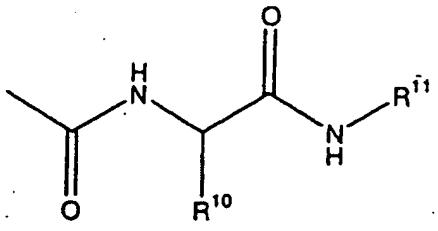
(H)



(J)

wherein:

R^9 represents hydrogen, alkyl, alkoxycarbonyl, monoalkylcarbamoyl, monoaralkylcarbamoyl, monoarylcarbamoyl or a group of the formula:



R^{10} and R^{11} each represents alkyl;

R^{12} represents hydrogen, hydroxy, alkoxycarbonylamino or acylamino;

R^{13} represents hydrogen, alkyl, aryl, alkoxycarbonyl or acyl;

m is 1, 2, 3, or 4;

p is 1 or 2;

q is 0, 1 or 2; and R^6 represents hydrogen and alkyl radicals.

Claim 4 (withdrawn)

4. A compound of Claim 1 where Y^1 is oxygen.

Claim 5 (withdrawn)

5. A compound of Claim 1 where R^2 is arylthioalkyl.

Claim 6 (withdrawn)

6. A compound of Claim 2 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a bicyclic N-heterocyclic moiety.

Claim 7 (withdrawn)

7. A compound of Claim 1 where R is hydrogen, alkoxycarbonyl, arylalkylcarbonyl, heterocyclecarbonyl, aminoalkanoyl, mono-substituted aminoalkanoyl, di-substituted aminoalkanoyl.

Claim 8 (withdrawn)

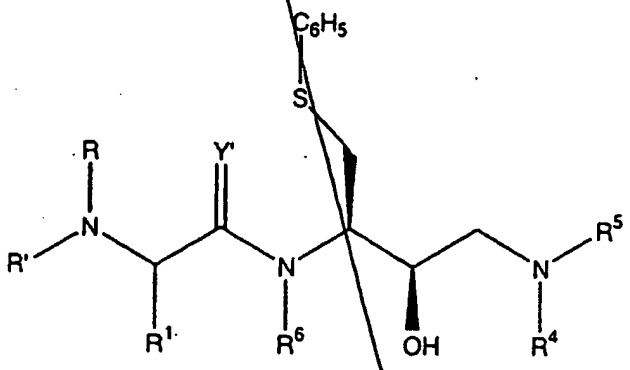
8. A compound of Claim 1 where R'is hydrogen.

Claim 9 (withdrawn)

9. A compound of Claim 3 where R^1 is hydrogen, alkyl, thioalkyl, alkylthioalkyl, alkenyl, alkynyl and cycloalkyl.

Claim 10 (withdrawn)

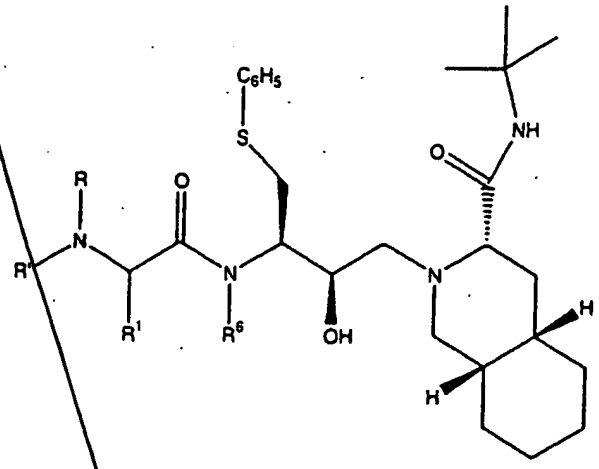
10. A compound of Claim 1 represented by the formula



wherein R, R', R^1, R^6, Y', R^4 and R^5 are as described herein.

Claim 11 (withdrawn)

11. A compound of Claim 3 represented by the formula



wherein R, R', R^1, R^6 and Y' are as described herein.

Claim 12 (withdrawn)

12. A pharmaceutical composition comprising a compound of Claim 1 and a pharmaceutical carrier.

Claim 13 (withdrawn)

13. A pharmaceutical composition comprising a compound of Claim 1 and pharmaceutical carriers.

Claim 14 (withdrawn)

14. Method of inhibiting a retroviral protease comprising administering a protease inhibiting amount of a compound of Claim 1.

Claim 15 (withdrawn) 15. Method of treating a retroviral infection comprising administering a pharmaceutical composition of a compound of Claim 1.

Claim 16 (withdrawn)

16. Method of treating HIV infection comprising administering a pharmaceutical composition of a compound of Claim 1.

Claim 17 (withdrawn)

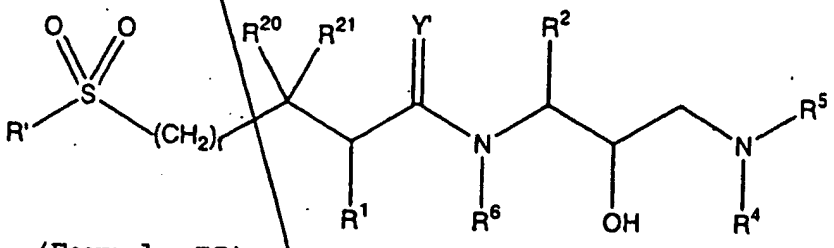
17. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 1.

Claim 18 (withdrawn)

18. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 1 in combination with other drugs for the treatment of AIDS or the symptoms of AIDS.

Claim 19 (original)

19. A compound represented by the formula:



(Formula II)

or a pharmaceutically acceptable salt, prodrug or ester thereof, wherein:

R' represents radicals defined for R^3;

t represents either 0 or 1;

R^1 represents hydrogen, $-CH_2SO_2NH_2$, $-CO_2CH_3$, $-CH_2CO_2CH_3$, $-C(O)NH_2$, $-C(O)NHCH_3$, $-C(O)N(CH_3)_2$, $-CH_2C(O)NHCH_3$, $-CH_2C(O)N(CH_3)_2$, alkyl, alkylthioalkyl, thioalkyl and the corresponding sulfoxide and sulfone derivatives thereof, alkenyl, alkynyl, alkoxyalkyl, haloalkyl and cycloalkyl radicals and amino acid side chains selected from the group consisting of asparagine, S-methyl cysteine and the corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, alanine, phenylalanine, ornithine, histidine, norleucine,

glutamine, valine, threonine, allo-threonine, serine, aspartic acid and beta-cyano alanine side chains;

R^2 represents alkylthioalkyl, cycloalkylthioalkyl or arylthioalkyl radicals, which radicals are optionally substituted with a substituent selected from the group consisting of $-NO_2$, $-OR^{15}$, $-SR^{15}$, and halogen radicals, wherein R^{15} represents hydrogen and alkyl radicals;

R^3 represents hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, hydroxyalkyl, alkoxyalkyl, cycloalkyl, cycloalkylalkyl, heterocycloalkyl, heteroaryl, heterocycloalkylalkyl, aryl, aralkyl, and heteroaralkyl radicals;

Y' represents O, S and NR^3;

R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocycle;

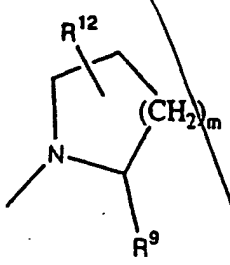
R^6 represents hydrogen and alkyl radicals;

and R^{20} and R^{21} represent radicals as defined for R^1.

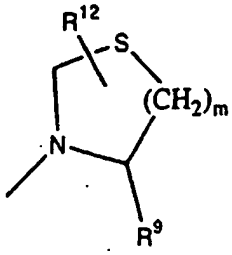
Claim 20. (original)
20. A compound of Claim 19 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocyclic moiety containing 5, 6 or 7 members when monocyclic, 5, 6 or 7 members in a ring with 1, 2 or 3 members in a bridge when a bridged monocyclic, 11, 12 or 13 members when bicyclic, and 11

to 16 members when tricyclic; and R^6 represents hydrogen and alkyl radicals. —

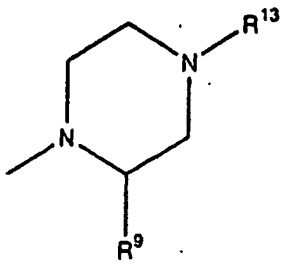
Claim 21. (original)
21. A compound of Claim 20 where R^4 and R^5 together with the nitrogen atom to which they are bonded form a N-heterocyclic moiety selected from the group consisting of formulae (A) through and including (J)



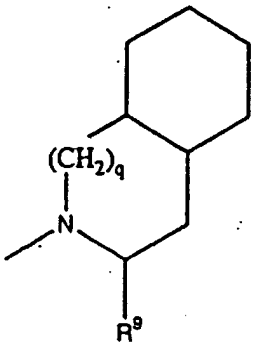
(A)



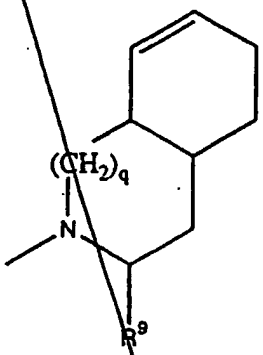
(B)



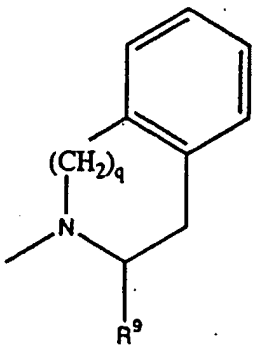
(C)



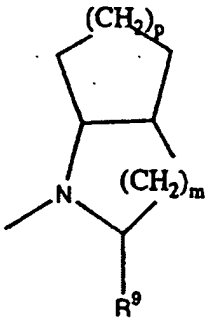
(D)



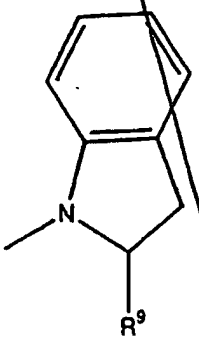
(E)



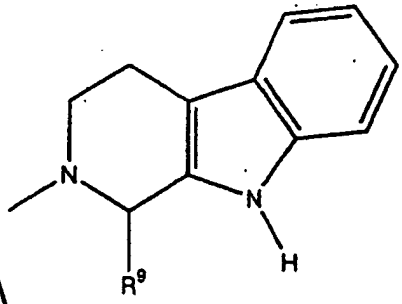
(F)



(G)



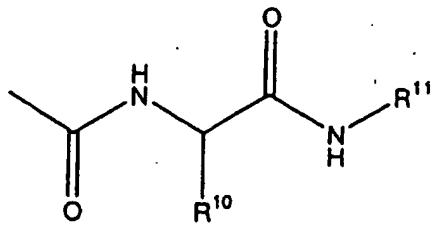
(H)



(J)

wherein:

R^9 represents hydrogen, alkyl, alkoxycarbonyl, monoalkylcarbamoyl, monoaralkylcarbamoyl, monoarylcarbamoyl or a group of the formula:



R^{10} and R^{11} each represents alkyl;

R^{12} represents hydrogen, hydroxy, alkoxycarbonylamino or acylamino;

R^{13} represents hydrogen, alkyl, aryl, alkoxycarbonyl or acyl;

m is 1, 2, 3, or 4;

p is 1 or 2;

q is 0, 1 or 2; and R^6 represents hydrogen and alkyl radicals.

Claim 22. (original)
22. A compound of Claim 19 where Y' is oxygen.

Claim 23. (original)
23. A compound of Claim 19 where R^2 is arylthioalkyl.

Claim 24. (original)
24. A compound of Claim 19 where t is 0.

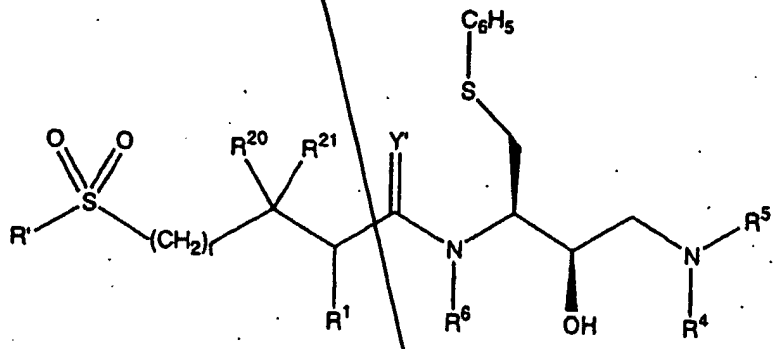
Claim 25. (original)
25. A compound of Claim 20 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a bicyclic N-heterocyclic moiety.

Claim 26. (original)
26. A compound of Claim 19 where R^{20} and R^{21} are hydrogen or alkyl.

Claim 27. (original)
27. A compound of Claim 19 where R'is alkyl, aryl or arylalkyl.

Claim 28. (original)
28. A compound of Claim 19 where R^1 is hydrogen, alkyl, thioalkyl, alkylthioalkyl, alkenyl, alkynyl and cycloalkyl.

Claim 29. (currently amended)
29. A compound of Claim 19 represented by the Formula



wherein ~~R', R¹, R⁶, R⁴, R⁵, R²⁰, R²¹, Y' and t are as described herein.~~

R' represents radicals defined for R^1;

t represents either 0 or 1;

R^1 represents hydrogen, $-CH_2SO_2NH_2$, $-CO_2CH_3$, $-CH_2CO_2CH_3$, $-C(O)NH_2$, $-C(O)NHCH_3$, $-C(O)N(CH_3)_2$, $-CH_2C(O)NHCH_3$, $-CH_2C(O)N(CH_3)_2$, alkyl, alkylthioalkyl, thioalkyl and the corresponding sulfoxide and sulfone derivatives thereof, alkenyl, alkynyl, alkoxyalkyl, haloalkyl and cycloalkyl radicals and amino acid side chains selected from the group consisting of asparagine, S-methyl cysteine and the corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, alanine, phenylalanine, ornithine, histidine, norleucine, glutamine, valine, threonine, allo-threonine, serine, aspartic acid and beta-cyano alanine side chains;

R^2 represents alkylthioalkyl, cycloalkylthioalkyl or arylthioalkyl radicals, which radicals are optionally substituted with a substituent selected from the group consisting of $-NO_2$, $-OR^{15}$, $-SR^{15}$, and halogen radicals, wherein R^{15} represents hydrogen and alkyl radicals;

R^3 represents hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, hydroxyalkyl, alkoxyalkyl, cycloalkyl, cycloalkylalkyl, heterocycloalkyl, heteroaryl, heterocycloalkylalkyl, aryl, aralkyl, and heteroaralkyl radicals;

Y' represents O, S and NR^3;

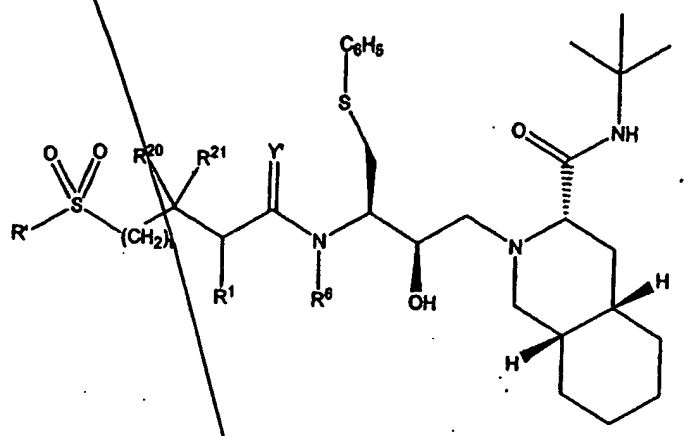
R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocycle;

R^6 represents hydrogen and alkyl radicals;

and R^{20} and R^{21} represent radicals as defined for R^1.

Claim 30. (currently amended)

30. A compound of Claim 21 represented by the formula



wherein ~~R', R^1, R^6, R^4, R^5, R^{20}, R^{21}, t, and Y' are as described herein.~~

R' represents radicals defined for R^3;

t represents either 0 or 1;

R^1 represents hydrogen, $-CH_2SO_2NH_2$, $-CO_2CH_3$, $-CH_2CO_2CH_3$, $-C(O)NH_2$, $-C(O)NHCH_3$, $-C(O)N(CH_3)_2$, $-CH_2C(O)NHCH_3$, $-CH_2C(O)N(CH_3)_2$, alkyl, alkylthioalkyl, thioalkyl and the corresponding sulfoxide and sulfone derivatives thereof, alkenyl, alkynyl, alkoxyalkyl, haloalkyl and cycloalkyl radicals and amino acid side chains selected from the group consisting of asparagine, S-methyl cysteine and the corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, alanine, phenylalanine, ornithine, histidine, norleucine, glutamine, valine, threonine, allo-threonine, serine, aspartic acid and beta-cyano alanine side chains;

R^3 represents alkylthioalkyl, cycloalkylthioalkyl or arylthioalkyl radicals, which radicals are optionally substituted with a substituent selected from the group consisting of $-NO_2$, $-OR^{15}$, $-SR^{15}$, and halogen radicals, wherein R^{15} represents hydrogen and alkyl radicals;

R^5 represents hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, hydroxyalkyl, alkoxyalkyl, cycloalkyl, cycloalkylalkyl, heterocycloalkyl, heteroaryl, heterocycloalkylalkyl, aryl, aralkyl, and heteroaralkyl radicals;

Y' represents O, S and NR^5;

R^6 represents hydrogen and alkyl radicals;

and R^{20} and R^{21} represent radicals as defined for R^1.

Claim 31. (original)
31. A pharmaceutical composition comprising a compound of Claim 19 and a pharmaceutical carrier.

Claim 32. (original)
32. A pharmaceutical composition comprising a compound of Claim 19 and pharmaceutical carriers.

Claim 33. (original)
33. Method of inhibiting a retroviral protease comprising administering a protease inhibiting amount of a compound of Claim 19.

Claim 34. (orginal)
34. Method of treating a retroviral infection comprising administering a pharmaceutical composition of a compound of Claim 19.

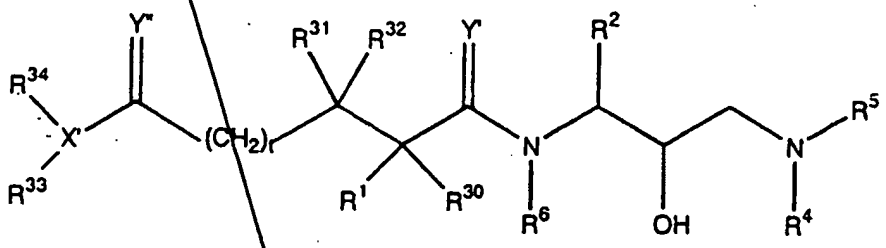
Claim 35. (original)
35. Method of treating HIV infection comprising administering a pharmaceutical composition of a compound of Claim 19.

Claim 36. (original)
36. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 19.

Claim 37. (original)
37. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 19 in combination with other drugs for the treatment of AIDS or the symptoms of AIDS.

Claim 38 (withdrawn)

38. A compound represented by the formula:



(Formula III)

or a pharmaceutically acceptable salt, prodrug or ester thereof, wherein:

t represents either 0 or 1;

R^1 represents hydrogen, $-CH_2SO_2NH_2$, $-CO_2CH_3$, $-CH_2CO_2CH_3$, $-C(O)NH_2$, $-C(O)NHCH_3$, $-C(O)N(CH_3)_2$, $-CH_2C(O)NHCH_3$, $-CH_2C(O)N(CH_3)_2$, alkyl, thioalkyl, thioalkyl and the corresponding sulfoxide and sulfone derivatives thereof, alkenyl, alkynyl, alkoxyalkyl, haloalkyl and cycloalkyl radicals and amino acid side chains selected from the group consisting of asparagine, S-methyl cysteine and the corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, alanine,

phenylalanine, ornithine, histidine, norleucine, glutamine, valine, threonine, allo-threonine, serine, aspartic acid and beta-cyano alanine side chains;

R^2 represents alkylthioalkyl, cycloalkylthioalkyl, or arylthioalkyl radicals, which radicals are optionally substituted with a substituent selected from the group consisting of $-NO_2$, $-OR^{15}$, $-SR^{15}$, and halogen radicals, wherein R^{15} represents hydrogen and alkyl radicals;

R^3 represents hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, hydroxyalkyl, alkoxyalkyl, cycloalkyl, cycloalkylalkyl, heterocycloalkyl, heteroaryl, heterocycloalkylalkyl, aryl, aralkyl, and heteroaralkyl radicals;

X' represent O, N and $C(R^{17})$ where R^{17} represents hydrogen and alkyl radicals;

Y' and Y" independently represent O, S and NR^3;

R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocycle;

R^6 represents hydrogen and alkyl radicals;

R^{30}, R^{31} and R^{32} independently represent radicals as defined for R^1, or one of R^1 and R^{30} together with one of R^{31} and R^{32} and the carbon atoms to which they are attached form a cycloalkyl radical; and

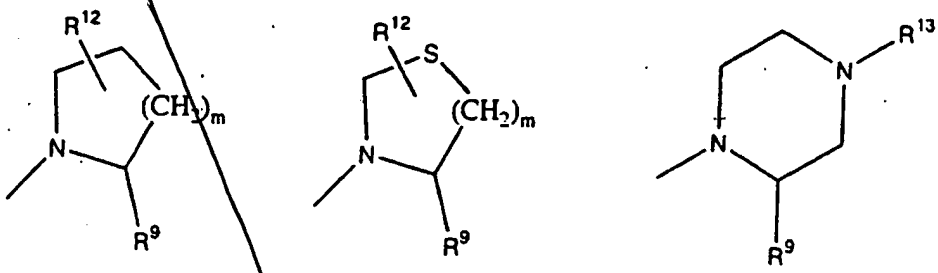
R^{33} and R^{34} independently represent radicals as defined for R^3, or R^{33} and R^{34} together with X' represent cycloalkyl, aryl, heterocyclyl and heteroaryl radicals, provided that when X' is O, R^{34} is absent.

Claim 39 (withdrawn)

39. A compound of Claim 38 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocyclic moiety containing 5, 6 or 7 members when monocyclic, 5, 6 or 7 members in a ring with 1, 2 or 3 members in a bridge when a bridged monocyclic, 11, 12 or 13 members when bicyclic, and 11 to 16 members when tricyclic; and R^6 represents hydrogen and alkyl radicals.

Claim 40 (withdrawn)

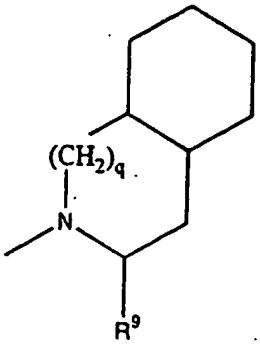
40. A compound of Claim 39 where R^4 and R^5 together with the nitrogen atom to which they are bonded form a N-heterocyclic moiety selected from the group consisting of formulae (A) through and including (J)



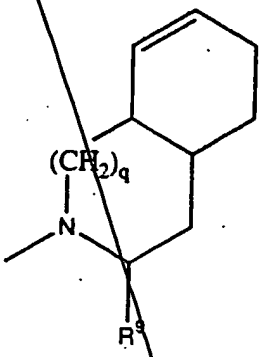
(A)

(B)

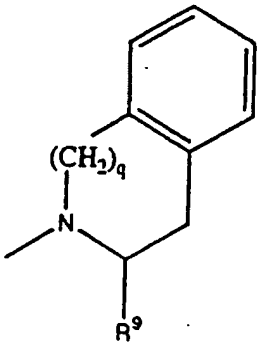
(C)



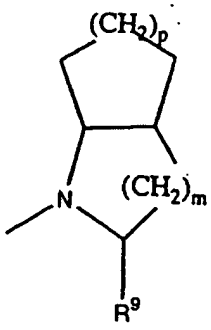
(D)



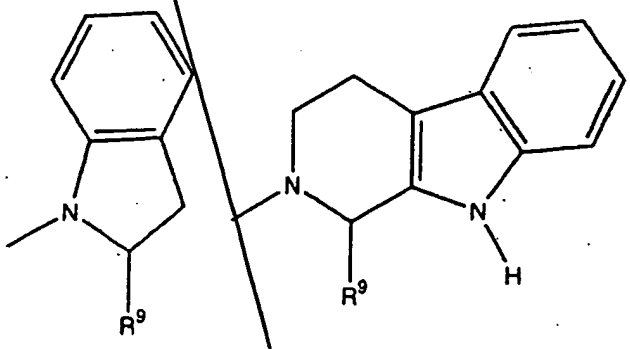
(E)



(F)



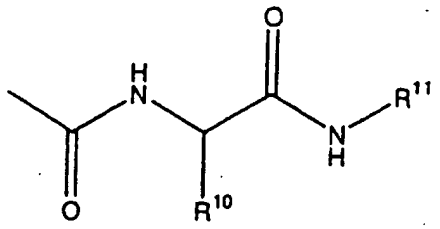
(G)



(H) (J)

wherein:

R^9 represents hydrogen, alkyl, alkoxycarbonyl, monoalkylcarbamoyl, monoaralkylcarbamoyl, monoarylcarbamoyl or a group of the formula:



R^{10} and R^{11} each represents alkyl;

R^{12} represents hydrogen, hydroxy, alkoxycarbonylamino or acylamino;

R^{13} represents hydrogen, alkyl, aryl, alkoxycarbonyl or acyl;

m is 1, 2, 3, or 4;

p is 1 or 2;

q is 0, 1 or 2; and R^5 represents hydrogen and alkyl radicals.

Claim 41 (withdrawn)

41. A compound of Claim 38 where Y' and Y" are oxygen.

Claim 42 (withdrawn)

42. A compound of Claim 38 where R^2 is arylthioalkyl.

Claim 43 (withdrawn)

43. A compound of Claim 38 where t is 0.

Claim 44 (withdrawn)

44. A compound of Claim 39 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a bicyclic N-heterocyclic moiety.

Claim 45 (withdrawn)

45. A compound of Claim 38 where X' is oxygen.

Claim 46 (withdrawn)

46. A compound of Claim 38 where X' is nitrogen.

Claim 47 (withdrawn)

47. A compound of Claim 38 where R^{33} and R^{34} are hydrogen, alkyl, cycloalkyl, aralkyl or haloalkyl.

Claim 48 (withdrawn)

48. A compound of Claim 38 where R^{33} and R^{34} taken together with the nitrogen to which they are attached form a heterocyclic ring.

Claim 49 (withdrawn)

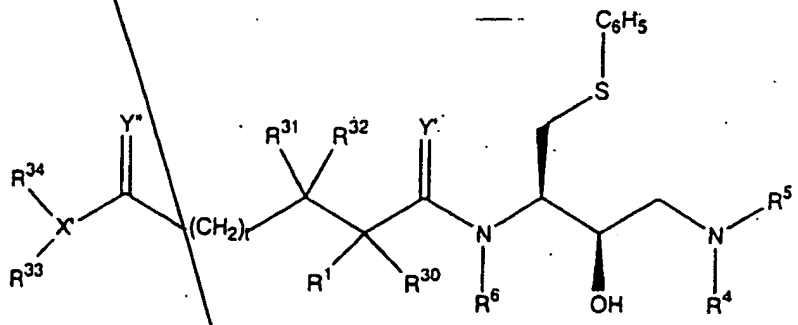
49. A compound of Claim 40 where R^1 is hydrogen, alkyl, thioalkyl, alkylthioalkyl, alkenyl, alkynyl and cycloalkyl.

Claim 50 (withdrawn)

50. A compound of Claim 38 where R^1, R^{30}, R^{31}, R^{32} are hydrogen or alkyl.

Claim 51 (withdrawn)

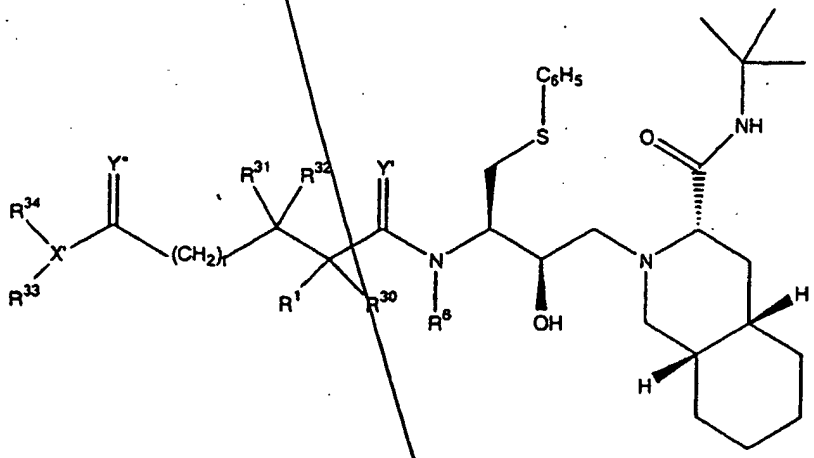
51. A compound of Claim 38 represented by the Formula



wherein R^1, R^6, Y', Y'', R^4, R^5, R^{30}, R^{31}, R^{32}, R^{33}, R^{34} and t are as described herein.

Claim 52 (withdrawn)

52. A compound of Claim 40 represented by the formula



wherein R, R', R^1, R^6 and Y' are as described herein.

Claim 53 (withdrawn)

53. A pharmaceutical composition comprising a compound of Claim 38 and a pharmaceutical carrier.

Claim 54 (withdrawn)

54. A pharmaceutical composition comprising a compound of Claim 38 and a pharmaceutical carriers.

Claim 55 (withdrawn)

55. Method of inhibiting a retroviral protease comprising administering a protease inhibiting amount of a compound of Claim 38.

Claim 56 (withdrawn) 56. Method of treating a retroviral infection comprising administering a pharmaceutical composition of a compound of Claim 38.

Claim 57 (withdrawn)

57. Method of treating HIV infection comprising administering a pharmaceutical composition of a compound of Claim 38.

Claim 58 (withdrawn)

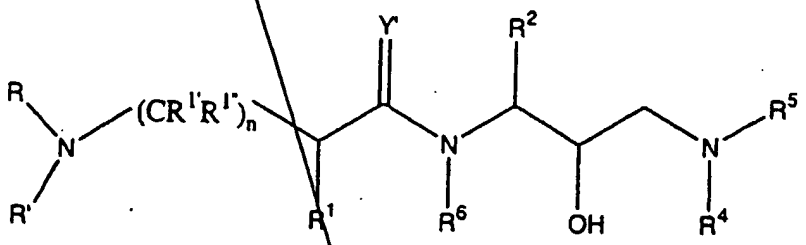
58. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 38.

Claim 59 (withdrawn)

59. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 38 in combination with other drugs for the treatment of AIDS or the symptoms of AIDS.

Claim 60 (withdrawn)

60. A compound represented by the formula:



(Formula IV)

or a pharmaceutically acceptable salt, prodrug or ester thereof, wherein:

R represents hydrogen, alkoxycarbonyl, aryloxycarbonylalkyl, aralkoxycarbonyl, alkylcarbonyl, cycloalkylcarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkanoyl, alkanoyl, aralkanoyl, aroyl, aryloxycarbanoyl, aryloxyalkanoyl, heterocyclylcarbonyl, heterocycloxycarbonyl, heteroaralkoxycarbonyl, heterocyclylalkanoyl, heterocyclylalkoxycarbonyl, heteroarylcarbonyl, heteroaryloxycarbonyl, heteroaroyl, alkyl, alkenyl, cycloalkyl, aryl, aralkyl, aryloxyalkyl, heteroaryloxyalkyl, hydroxyalkyl, aralkylaminoalkylcarbonyl, aminoalkanoyl,

aminocarbonyl, aminocarbonylalkyl, alkylaminoalkylcarbonyl, and mono- and disubstituted aminocarbonyl and aminoalkanoyl radicals wherein the substituents are selected from the group consisting of alkyl, aryl, aralkyl, cycloalkyl, cycloalkylalkyl, heteroaryl, heteroaralkyl, heterocycloalkyl, and heterocycloalkylalkyl radicals, or in the case of disubstituted aminoalkanoyl, said substituents along with the nitrogen atom to which they are attached form a heterocyclyl or heteroaryl radical;

R' represents radicals defined for R^3, or R and R' together with the nitrogen to which they are attached form a heterocycloalkyl or heteroaryl radical;

n represents 1 or 2;

R^1 represents hydrogen, $-CH_2SO_2NH_2$, $-CO_2CH_3$, $-CH_2CO_2CH_3$, $-C(O)NH_2$, $-C(O)NHCH_3$, $-C(O)N(CH_3)_2$, $-CH_2C(O)NHCH_3$, $-CH_2C(O)N(CH_3)_2$, alkyl, thioalkyl and the corresponding sulfoxide and sulfone derivatives thereof, alkenyl, alkynyl, haloalkyl, alkoxyalkyl and cycloalkyl radicals and amino acid side chains selected from the group consisting of asparagine, S-methyl cysteine and the corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, alanine, phenylalanine, ornithine, histidine, norleucine, glutamine, valine, threonine, allo-threonine, serine, aspartic acid and beta-cyano alanine side chains;

$R^{1'}$ and $R^{2'}$ independently represent hydrogen and radicals as defined for R^3;

R^2 represents alkylthioalkyl, cycloalkylthioalkyl, or arylthioalkyl radicals, which radicals are optionally substituted with a substituent selected from the group consisting of $-NO_2$, $-OR^{15}$, $-SR^{15}$, and halogen radicals, wherein R^{15} represents hydrogen and alkyl radicals;

R^3 represents hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, hydroxyalkyl, alkoxyalkyl, cycloalkyl, cycloalkylalkyl, heterocycloalkyl, heteroaryl, heterocycloalkylalkyl, aryl, aralkyl, and heteroaralkyl radicals;

Y' represents O, S and NR^3;

R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocylic moiety;

R^6 represents hydrogen and alkyl radicals.

Claim 61 (withdrawn)

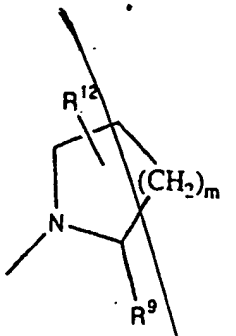
61. A compound of Claim 60 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocyclic moiety containing 5, 6 or 7 members when monocyclic, 5, 6 or 7 members in a ring with 1, 2 or 3 members in a bridge when a bridged monocyclic, 11, 12 or 13 members when bicyclic, and 11 to 16 members when tricyclic.

Claim 62 (withdrawn)

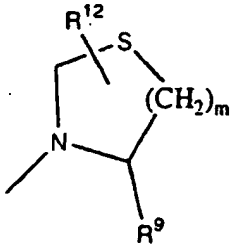
62. A compound of Claim 60 where n is 1.

Claim 63(withdrawn)

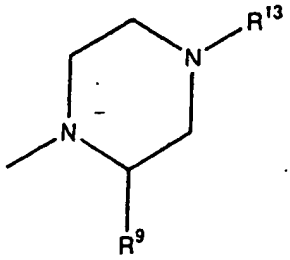
63. A compound of Claim 60 where R^4 and R^5 together with the nitrogen atom to which they are bonded form a N-heterocyclic moiety selected from the group consisting of formulae (A) through and including (J)



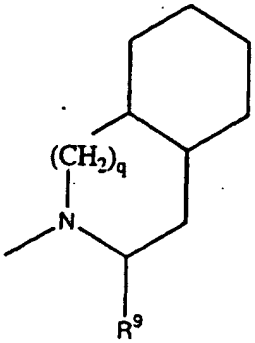
(A)



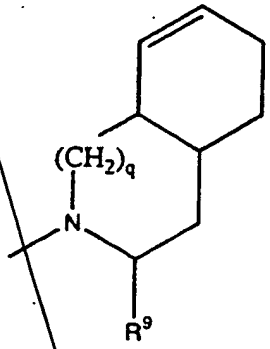
(B)



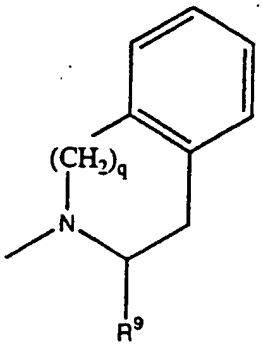
(C)



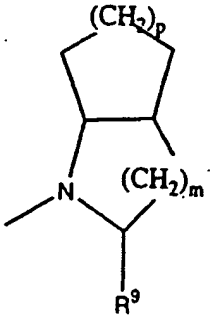
(D)



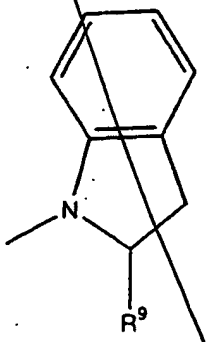
(E)



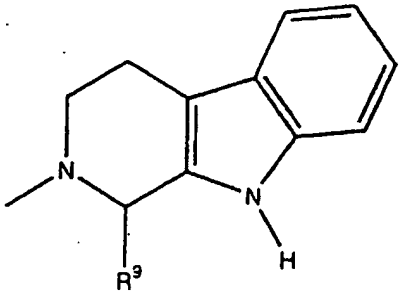
(F)



(G)



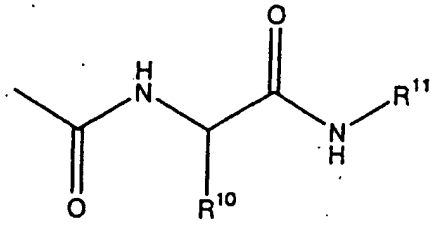
(H)



(J)

wherein:

R^9 represents hydrogen, alkyl, alkoxycarbonyl, monoalkylcarbamoyl, monoaralkylcarbamoyl, monoarylcarbamoyl or a group of the formula:



R^{10} and R^{11} each represents alkyl;

R^{12} represents hydrogen, hydroxy, alkoxycarbonylamino or acylamino;

R^{13} represents hydrogen, alkyl, aryl, alkoxycarbonyl or acyl;

m is 1, 2, 3, or 4;

p is 1 or 2;

q is 0, 1 or 2; and R^5 represents hydrogen and alkyl radicals.

Claim 64 (withdrawn)

64. A compound of Claim 60 where Y' is oxygen.

Claim 65 (withdrawn)

65. A compound of Claim 60 where R^2 is arylthioalkyl.

Claim 66 (withdrawn)

66. A compound of Claim 61 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a bicyclic N-heterocyclic moiety.

Claim 67 (withdrawn)

67. A compound of Claim 60 where R is hydrogen, alkoxycarbonyl, arylalkylcarbonyl, heterocyclecarbonyl, aminoalkanoyl, mono-substituted aminoalkanoyl, di-substituted aminoalkanoyl.

Claim 68 (withdrawn)

68. A compound of Claim 62 where $R^{1'}$ and $R^{1''}$ are hydrogen.

Claim 69 (withdrawn)

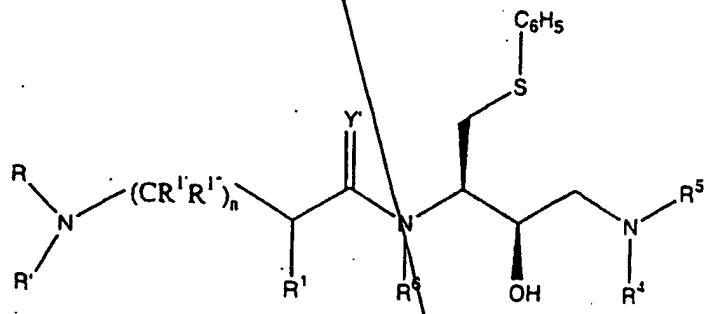
69. A compound of Claim 60 where R' is hydrogen.

Claim 70 (withdrawn)

70. A compound of Claim 60 where R^1 is hydrogen, alkyl, thioalkyl, alkylthioalkyl, alkenyl, alkynyl and cycloalkyl.

Claim 71 (withdrawn)

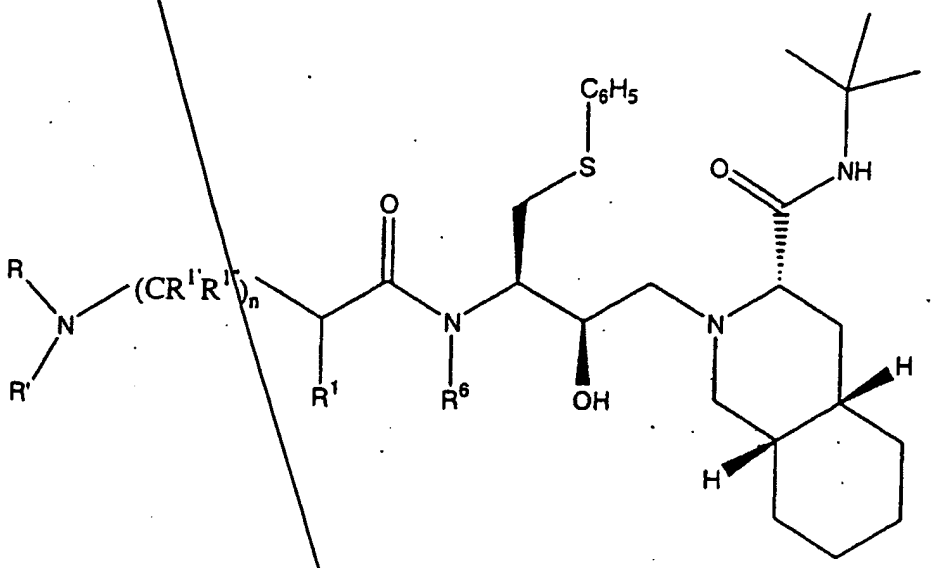
71. A compound of Claim 60 represented by the formula



wherein R, R', R^1, $R^{1'}$, $R^{1''}$, R^6, R^4, R^5 and Y' are as described herein.

Claim 72 (withdrawn)

72. A compound of Claim 63 represented by the formula



wherein R, R', R^1, $R^{1'}$, $R^{1''}$, R^6 and Y' are as described herein.

Claim 73 (withdrawn)

73. A pharmaceutical composition comprising a compound of Claim 60 and a pharmaceutical carrier.

Claim 74 (withdrawn)

74. A pharmaceutical composition comprising a compound of Claim 60 and pharmaceutical carriers.

Claim 75 (withdrawn)

75. Method of inhibiting a retroviral protease comprising administering a protease inhibiting amount of a compound of Claim 60.

Claim 76 (withdrawn)

76. Method of treating a retroviral infection comprising administering a pharmaceutical composition of a compound of Claim 60.

Claim 77 (withdrawn)

77. Method of treating HIV infection comprising administering a pharmaceutical composition of a compound of Claim 60.

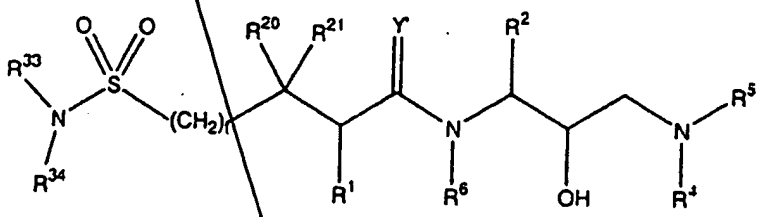
Claim 78 (withdrawn) 78. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 60.

Claim 79 (withdrawn)

79. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 60 in combination with other drugs for the treatment of AIDS or the symptoms of AIDS.

Claim 80 (withdrawn)

80. A compound represented by the formula:



(Formula IIa)

or a pharmaceutically acceptable salt, prodrug or ester thereof, wherein:

t represents either 0 or 1;

R^1 represents hydrogen, $-CH_2SO_2NH_2$, $-CO_2CH_3$, $-CH_2CO_2CH_3$, $-C(O)NH_2$, $-C(O)NHCH_3$, $-C(O)N(CH_3)_2$, $-CH_2C(O)NHCH_3$, $-CH_2C(O)N(CH_3)_2$, alkyl, alkylthioalkyl, thioalkyl and the corresponding sulfoxide and sulfone derivatives thereof, alkenyl, alkynyl and cycloalkyl radicals and amino acid side chains selected from the group consisting of asparagine, S-methyl cysteine and the corresponding sulfoxide and sulfone derivatives thereof, glycine, leucine, isoleucine, allo-isoleucine, tert-leucine, alanine, phenylalanine, ornithine, histidine, norleucine, glutamine, valine, threonine, allo-threonine, serine, aspartic acid and beta-cyano alanine side chains;

R^2 represents alkylthioalkyl, cycloalkylthioalkyl or arylthioalkyl radicals, which radicals are optionally substituted with a substituent selected from the group consisting of $-NO_2$, $-OR^{15}$, $-SR^{15}$, and halogen radicals, wherein R^{15} represents hydrogen and alkyl radicals;

R^3 represents hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, hydroxyalkyl, alkoxyalkyl, cycloalkyl, cycloalkylalkyl, heterocycloalkyl, heteroaryl, heterocycloalkylalkyl, aryl, aralkyl, and heteroaralkyl radicals;

Y' represents O, S and NR^3;

R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocycle;

R^6 represents hydrogen and alkyl radicals;

R^{33} and R^{34} independently represent radicals as defined for R^3, or R^{33} and R^{34} together with the nitrogen to which they are attached form heterocyclyl and heteroaryl radicals;

and R^{20} and R^{21} represent radicals as defined for R^1.

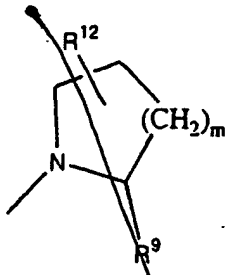
Claim 81 (withdrawn)

81. A compound of Claim 80 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a N-heterocyclic moiety containing 5, 6 or 7 members when monocyclic, 5, 6 or 7 members in a ring with 1, 2 or 3 members in a bridge when a bridged

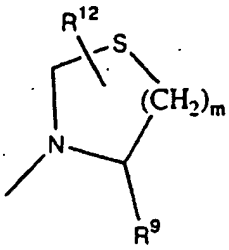
monocyclic, 11, 12 or 13 members when bicyclic, and 11 to 16 members when tricyclic; and R^6 represents hydrogen and alkyl radicals.

Claim 82 (withdrawn)

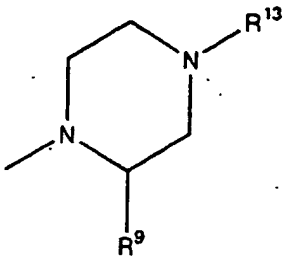
82. A compound of Claim 80 where R^4 and R^5 together with the nitrogen atom to which they are bonded form a N-heterocyclic moiety selected from the group consisting of formulae (A) through and including (J)



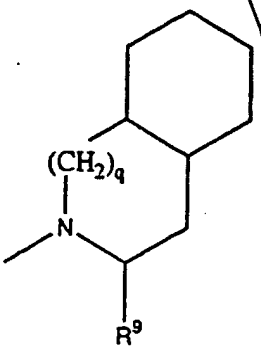
(A)



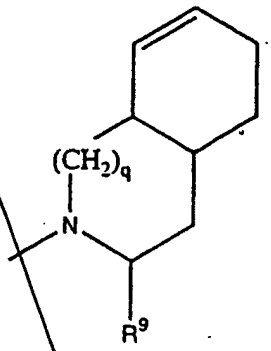
(B)



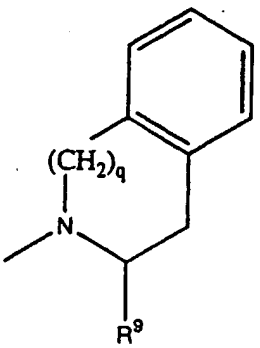
(C)



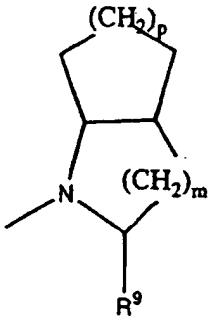
(D)



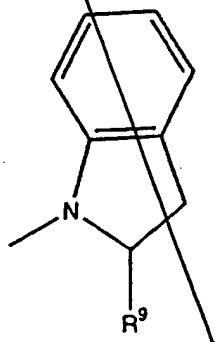
(E)



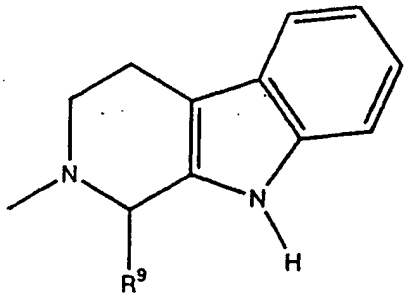
(F)



(G)



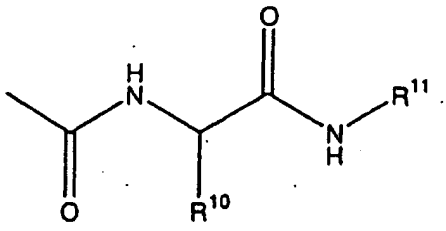
(H)



(J)

wherein:

R^9 represents hydrogen, alkyl, alkoxycarbonyl, monoalkylcarbamoyl, monoaralkylcarbamoyl, monoarylcarbamoyl or a group of the formula:



R^{10} and R^{11} each represents alkyl;

R^{12} represents hydrogen, hydroxy, alkoxycarbonylamino or acylamino;

R^{13} represents hydrogen, alkyl, aryl, alkoxycarbonyl or acyl;

m is 1, 2, 3, or 4;

p is 1 or 2;

q is 0, 1 or 2; and R^6 represents hydrogen and alkyl radicals.

Claim 83 (withdrawn)

83. A compound of Claim 80 where Y' is oxygen.

Claim 84 (withdrawn)

84. A compound of Claim 80 where R^2 is arylthioalkyl.

Claim 85 (withdrawn)

85. A compound of Claim 80 where t is 0.

Claim 86 (withdrawn)

86. A compound of Claim 81 where R^4 and R^5 together with the nitrogen atom to which they are bonded represent a bicyclic N-heterocyclic moiety.

Claim 87 (withdrawn)

87. A compound of Claim 80 where R^{33} and R^{34} are hydrogen, alkyl, cycloalkyl, aralkyl or haloalkyl.

Claim 88 (withdrawn)

88. A compound of Claim 80 where R^{33} and R^{34} taken together with the nitrogen to which they are attached form a heterocyclic ring.

Claim 89 (withdawn)

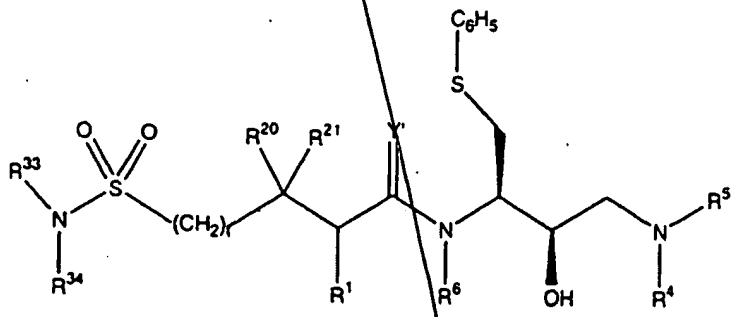
89. A compound of Claim 80 where R^1 is hydrogen, alkyl, thioalkyl, alkylthioalkyl, alkenyl, alkynyl and cycloalkyl.

Claim 90 (withdrawn)

90. A compound of Claim 80 where R^{20} and R^{21} are hydrogen or alkyl.

Claim 91 (withdrawn)

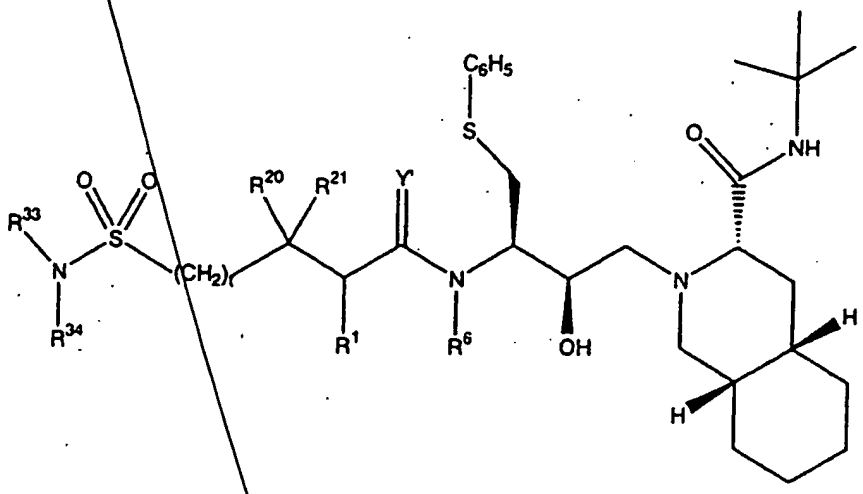
91. A compound of Claim 80 represented by the Formula



wherein R^1, R^6, R^4, R^5, R^{20}, R^{21}, R^{33}, R^{34}, t and Y' are as described herein.

Claim 92 (withdrawn)

92. A compound of Claim 82 represented by the formula



wherein R^1, R^6, R^{20}, R^{21}, R^{33}, R^{34}, t and Y' are as described herein.

Claim 93 (withdrawn)

93. A pharmaceutical composition comprising a compound of Claim 80 and a pharmaceutical carrier.

Claim 94 (withdrawn)

94. A pharmaceutical composition comprising a compound of Claim 80 and a pharmaceutical carriers.

Claim 95 (withrawn)

95. Method of inhibiting a retroviral protease comprising administering a protease inhibiting amount of a compound of Claim 80.

Claim 96 (withdrawn)

96. Method of treating a retroviral infection comprising administering a pharmaceutical composition of a compound of Claim 80.

Claim 97 (withdrawn)

97. Method of treating HIV infection comprising administering a pharmaceutical composition of a compound of Claim 80.

Claim 98 (withdrawn)

98. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 80.

Claim 99 (withrdawn)

99. Method of treating AIDS comprising administering a pharmaceutical composition of a compound of Claim 80 in combination with other drugs for the treatment of AIDS or the symptoms of AIDS.